

## ABSTRACT

In general, in one aspect, the disclosure describes a system to process packets received over a network. The system includes a receive process of at least one thread of a network processor to receive data of packets belonging to different flows. The system also includes a transmit process of at least one thread to transmit packets received by the receive process. A scheduler process of at least one thread populates at least one schedule of flow service based, at least in part, on quality of service characteristics associated with the different flows. The schedule identifies different flow candidates for service. The system also includes a shaper process of at least one thread to select from the candidate flows for service from the at least one schedule.